

Why do SMEs hire gig workers? – A survey of the Dutch hotel and manufacturing industry

MASTER THESIS

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Abstract

The gig economy is a new type of labour market, enabling the hiring of service providers for a one-time job through an online platform. In this research, I investigate in which circumstances companies hire this new type of worker – rather than employing workers in-house or hiring them externally through traditional channels (including temp agencies or through independent service providers). By developing a theoretical framework bridging the literature on transaction cost theory, human resources literature and literature on trust, I propose seven hypotheses on factors which potentially influence the hiring of gig workers. More concretely, I expect that the human capital value and uniqueness of workers, the level of trust and transaction cost factors significantly influence through which channel companies recruit their workforces. To test these hypotheses, I conduct multinomial logistic regression analyses, based on a dataset formed by surveys of the Dutch hotel industry (the manufacturing industry provided no data on gig worker). The findings show that benevolence is of significant influence, favouring internal staff as opposed to gig workers. Furthermore, from interactions with hotel managers/owners, there were reliable indicators that uncertainty and cost pressure also influence the probability of hiring gig workers. Participants indicated that they value the flexibility of gig workers and that they are often cheaper than a temp agency worker.

Table of contents

1. Introduction.....	4
2. Theory.....	6
2.1 Make-or-buy: Hiring employees internally or flexible labour externally	6
2.1.1 Make: Hiring employees.....	6
2.1.2 Buy: Hiring externally	6
2.2: Reasons for buying workforce.....	8
2.2.1. Transaction cost economics	8
Uncertainty.....	9
Outsourcing emphasis	9
Cost pressure	9
2.2.2 Trust.....	9
Credibility	10
Benevolence	10
2.2.3 Human resources architecture	10
Human capital value	10
Human capital uniqueness	11
3. Method.....	12
3.1 Research design.....	12
3.2 Data collection.....	12
Population and sample.....	12
Empirical approach.....	12
3.3 Operationalisation.....	13
3.4 Analysis.....	16
4. Results	17
4.1 Descriptive.....	17
4.2 Multinomial logistic regression analysis.....	18
4.3 Robustness checks.....	20
5. Conclusion	21
6. Discussion	22
6.1 Relevance	22
6.2 Future research & Limitations.....	22
Acknowledgements	23
References.....	24

Appendix A 27
Appendix B 38

1. Introduction

“Human resources are an organisation’s most important asset” (Jones, 2013). Managing and monitoring this resource is therefore very important, and when done effectively, it can give organisations an essential competitive advantage. When it comes to human resources (HR), most literature focuses on the internal environment of a firm (Jones, 2013). However, next to hiring employees on the basis of permanent or fixed-term contracts, firms can also hire external labour to complement or substitute their internal workforce when needed. Examples of external labour are workers hired through temp agencies or outsourcing work to an individual freelancer or a company. The use of external labour and flexible forms of hiring have increased over the last decades (de Graaf-Zijl & Berkhout, 2007). One reason for this is that firms increasingly need to be able to cope with volatile markets and to cover (seasonal) peaks in labour demand (Lotti & Viviano, 2011). To this end, firms can use temporary workers who can easily be hired and dismissed (de Graaf-Zijl & Berkhout, 2007).

The decision of whether to hire employees internally or to hire service providers externally is often referred to as a make-or-buy decision (Miles & Snow, 1984). As Lepak and Snell point out, both internal employees and external hiring arrangements come with their benefits and drawbacks (Lepak & Snell, 1999). The most important benefit for internal employment is the enhancement of stability and predictability of skills and capabilities within a firm. External labour provides options for a more balanced workforce and increases a firm’s flexibility. Lepak and Snell also illustrate that firms hardly ever employ exclusively internal or external workforces but tend to hire a combination of both internal employees and external service providers.

Next to these established forms of external labour, we recently witnessed a new form of external workers, namely so-called gig workers. The gig economy is a relatively new phenomenon in which online platforms are used to manage work (Spencer, Huws, Syrdal, & Holts, 2017). Gig workers are independent workers that have a high degree of autonomy, are paid per task and often have a short-term relationship with their client (McKinsey et al., 2016). What makes gig workers unique is that they find and offer work via online platforms. The tasks they perform range from relatively low skilled jobs, such as cleaning or image tagging, to high-skilled jobs, including for example programming or translations. By using these platforms, firms can access skills and flexible labour from potentially anywhere in the world (Kässi & Lehdonvirta, 2018), whereas the hiring of the aforementioned, established types of external labour is often bound by geographical proximity. Also, firms do not need to set up a contract for the hiring of gig workers which, in turn, causes a decrease in transaction costs. The literature furthermore agrees that, since the crisis of 2008, the use of gig workers hired through online platforms has increased exponentially (Spencer et al., 2017). Small to large firms are increasingly using these platforms to find and hire workers on a project, task or hourly basis.

For small to medium-sized firms (SMEs), both the potential benefits and risks of hiring external labour are high. Because of the costs associated with hiring and firing, the risks related to hiring a permanent employee are particularly high for SMEs because the latter are extremely short of financial resources. In addition, flexibility is often of the utmost importance to these firms as their business models still tend to change. Due to their (rapid) growth without having an established ‘modus operandi’, SMEs are thus prone to sharp fluctuations in labour demand. These conditions make SMEs particularly likely to cover the need for human resources through external sources. However, the risks of hiring gig workers are also considerable, because gig workers might not always have the best interest of firms in mind when performing a task. When a gig worker delivers bad work or even steals an idea or intellectual property, SMEs do not have the financial resources to take legal action.

In view of the specific labour demands of SMEs, it is striking that the 'make-or-buy' decisions of labour remain understudied for SMEs. Existing studies regarding these 'make-or-buy' decisions have only focused on large established firms (Greer, Youngblood, & Gray, 1999; Klaas, McClendon, & Gainey, 1999; Lepak & Snell, 2002; Miles & Snow, 1984). Given the advent of the gig economy and its potential to address the HR constraints of SMEs, the need to address this literature gap becomes particularly urgent. Therefore, this research asks the question: ***What factors explain the hiring of gig workers by manufacturing and hotel SMEs in the Netherlands?***

The Netherlands provides a particularly insightful case for addressing this research question because this country has proven to be particularly open towards flexible forms of employment. The Netherlands, together with Germany and the UK, has one of the biggest markets for temporary services in Europe (Jahn & Bentzen, 2012). Furthermore, the Netherlands is an often-cited example and seen as a forerunner of a country that successfully implements frameworks for combining flexibility and security (van Liemt, 2013; Voss et al., 2013). The Dutch government acknowledges the need for employers to be able to hire workers in a flexible manner (Koene, Pot, & Paauwe, 2003).

Another important reason to focus on the Netherlands is its strongly regulated labour market which qualifies it as a Coordinated Market Economy (CME) (P. A. Hall & Soskice, 2001). In CMEs, employees enjoy high levels of protection, this protection benefits the employees but causes very high costs of employment and firing permanent staff (Houseman, 2001). These conditions in a CME enlarge the financial risks with regard to having a workforce that is based on permanent employment. Therefore, the necessity for SMEs to hire (external) labour on a flexible basis, which comes with less financial risks, is even higher in CMEs in comparison to other economies. The gig economy is, thus far, mostly not regulated, and contracts between gig workers and employers are non-existing. This entails that the financial risks from working with gig workers are, in comparison with hiring permanent employees, very low.

This research examines the manufacturing and hotel industry, both industries are highly competitive and offer many SMEs. The main difference between these industries is that the manufacturing industry focuses on products whereas the hotels focus on service. Exploring these two industries increases the generalizability and robustness of the findings.

By answering the above research question, this research will test the theoretical applicability of existing literature on the influence on make-or-buy decisions for SMEs. More concretely, these works of literature include transaction cost economics, the human resource literature, and labour sociology on trust, thus far these theories have only tested on large firms. Additionally, the gig economy (providing a new type of external labour) has not been examined from a human resource management (HRM) perspective. Examining gig workers from a firm perspective provides (HR) managers with insights on under what conditions to hire gig workers. Also, this research provides insights for firms on how gig workers can provide a means to reach a specific goal like cost reduction or dealing with uncertainty.

Next to contributing to literature by exploring this new perspective on the gig economy, this thesis also has practical implications. Managers and entrepreneurs can yield much valuable information on why other firms use gig workers. With this knowledge, firms can make strategic and more thoughtful decisions on if and if so, how the use of gig workers can help their company forward. Furthermore, policymakers can make more informed decisions on in which situation they should or should not promote hiring gig workers.

2. Theory

2.1 Make-or-buy: Hiring employees internally or flexible labour externally

Within the social science literature, three strands provide fundamental insights into the decisions of firms to “make-or-buy” labour. Before combining these three literature strands into one theoretical framework that makes it possible to derive testable hypotheses about the factors that lead SMEs (not) to hire gig workers, it is necessary to clearly distinguish between the “making” and “buying” of labour. The decision to make-or-buy was first mentioned by Miles and Snow in 1984. In this context ‘make’ is referred to as developing skills and competencies internally. The decision to ‘buy’ means making use of external labour like outsourcing, freelancers, temp agencies – and gig worker. It is important to note that these options do not exclude each other; it is proven that using internal and external labour has strong complementary effects (Ko, 2003).

2.1.1 Make: Hiring employees

An essential advantage of the decision to ‘make’ is the fact that this gives a firm greater stability and predictability of the development of skills and capabilities (Pfeffer & Baron, 1988). An important feature of permanent employees is that they are usually working for a company for a long time, especially in CLMs. Therefore, permanent employees are seen as the core of a firm, they have the company know-how and firm-specific skills that are not be easily transferable (Lepak & Snell, 1999). The training of this staff has substantial positive effects on organisational performance and productivity (Huselid, 1995; Russel, Terborg, & Powers, 1985). The development of a firm’s staff does not only take place formally, with courses and training, but also informal through experience (Virtanen, Kivimäki, Virtanen, Elovainio, & Vahtera, 2003). This type of knowledge is also referred to as tacit knowledge, which is mostly produced by ‘doing’ and social interactions (Howells, 2002; Penrose, 1959). The tacit knowledge and the skills that permanent employees possess are often at the core of a firms business and contribute to competitive success (Lei & Hitt, 1995).

Another essential benefit of permanent employees is that they are often considered to be more productive and motivated than temporary workers. It is more challenging to motivate temporary employees as they are often not rewarded based on their level of performance (Ono, 2009). However, the downside of permanent employees is that they are usually associated with higher costs because of employee benefits, higher wages and dismissal costs (Kugler, Jimeno, & Hernanz, 2003).

2.1.2 Buy: Hiring externally

This research examines four forms of external labour, namely; temp agency workers, freelancers, outsourcing to other firms and gig worker. These forms of labour are, compared to permanent employees, more flexible because of the non-permanent relationship with an employer. Flexible labour is used for a wide variety of reasons; from filling in labour shortages to strategic long term goals (Burgess & Connell, 2006). As well as flexibility and efficiency by outsourcing tasks that can be done by specialists (Süß & Kleiner, 2010). Flexible staffing arrangements can increase flexibility, but it can also hinder HRM processes. Firms strive to create motivated, knowledgeable and committed staff but this is hard to achieve with temporary employees (R. Hall, 2006). Because of the temporary relationship, the loyalty of flexible labour towards a firm is a lot less than ‘normal’ employees (N. Anderson & Schalk,

1998). Furthermore, research in the Italian manufacturing industry found that hiring temporary workers comes at the cost of lower productivity (Lotti & Viviano, 2011).

Temp agency workers

Temps, as these workers are often called, have various benefits; from filling in labour shortages to strategic long term goals (Burgess & Connell, 2006). When firms hire temp workers via an agency, this saves them time and money in the recruitment and contracting phase because the agency is responsible for these tasks.

Making use of temp agency employees can increase flexibility, but it can also hinder HRM processes. To a certain extent, this can be overcome by making incentives for the temps to promote a good attitude and behaviour (Kuvaas & Dysvik, 2009). Van Dyne and Ang found that commitment of temporary workers can even be high when they are treated with respect and not viewed as peripheral (Van Dyne & Ang, 1998).

Freelancers

Benefits from working with freelancers are added flexibility and outsourcing tasks that can be done more efficiently by specialists (Süß & Kleiner, 2010). For a firm, it is more cost-effective to hire specialists only when they are needed and do not have them on the payroll permanently. However, there are also adverse effects. It is argued that because of the temporary relationship, the loyalty of freelancers towards a firm is a lot less than 'normal' employees (N. Anderson & Schalk, 1998). By some, flexibility and commitment are seen as a conflicting balance in which one comes at the expense of the other (Kulkarni & Ramamoorthy, 2005). Commitment is vital to firms because it is positively correlated with relevant outcomes like performance, attendance, behaviour and stress reduction (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002). Süß and Kleiner found that the affective and normative commitment of freelancers is lower than permanent employees due to their loose connection with a firm. However, continuance commitment is found to be equal to other employees (Süß & Kleiner, 2010).

Outsourcing

Firms also have the option to outsource specific tasks to a different (specialised) firm, almost all organisations outsource, and the trend keeps growing (Belcourt, 2006). The article by Belcourt provides an overview of the different benefits and risks associated with outsourcing. Some of the benefits are; financial advantages, a better focus on core business, and specialised expertise and service. Belcourt also provides the risks and limitations that are associated with outsourcing; the projected benefits are not always equal to the actual benefits, high costs associated with managing, contracting and negotiating, knowledge and skills are not kept inhouse, and the vendor can become competition with knowledge on your product. The latter makes it of great importance to have a trust relationship with the other party. The tasks that are outsourced are often not of strategic value but outsourcing them provides the opportunity to focus more on the tasks that are.

Gig workers

Gig workers can be hired in a very flexible manner without a (long term) contract (Friedman, 2014). Entrepreneurs use this fact to their benefit, with hiring gig workers entrepreneurs can invest in the needed human resources in a very flexible manner (Burtch, Carnahan, & Greenwood, 2018). This flexible workforce can be exerted when there is a lot of work and will not weight on the cost in times

when there is less work. Further benefits and drawbacks of hiring gig workers have yet to be studied in a scientific manner.

2.2: Reasons for buying workforce

In 2001, Houseman presented new evidence on why firms use flexible (mostly external) staffing arrangements (Houseman, 2001), in other words: buy instead of make. First, she found that firms use flexible labour to adjust the number of employees to the fluctuations in the workload without high adjustment costs. Second, houseman found that a flexible workforce is often used when regular staff is absent because of vacation or sickness. Employers mentioned in surveys that this is the most common reason for hiring flexible workers (Houseman, 2001; Ono, 2009). The third factor found by Houseman is that firms hire flexible labour is to lower costs. Flexible workers are often not protected by legislation or labour unions which makes hiring them cheaper. This economic factor was found to be most significant in industries where firms offer excellent benefits for their employees like pension and health insurance. The fourth finding of Houseman is that firms employ flexible workers to screen potential workers for full-time positions. However, Houseman found that this is not very often the case.

Another consideration for firms to buy instead of make is to be able to focus on their core competencies and move secondary functions to specialised firms (Belcourt, 2006). By outsourcing firms reported to have reduced administrative tasks by over 50% and increased focus on core competencies by 40% (Oshima, Kao, & Tower, 2005). A final reason to buy instead of make is simply because others are better at a particular task than you (or your firm). Specialised experts can provide better output, work more efficiently and provide learning opportunities to employers and employees (Belcourt, 2006; Süß & Kleiner, 2010)

From the literature above and the research of Houseman 2001, I extract three different literature strands that all found its foundation in transaction cost theory. These strands provide insights into the reasons for firms to make or buy workforces. First, the work of Klaas, McClendon and Gainey (1999) provides insights into factors on hiring external labour from a transaction cost economics perspective. Second, the work of Pavlou (2002), on trust between buyer and suppliers through an online platform, highlights the importance of trust that SMEs have towards gig workers and other employment modes. Third, the literature by Lepak and Snell (1999 & 2002) offers insights into the human capital value (HCV) and human capital uniqueness (HCU) of gig workers compared to other employment modes.

From these three literature strands, I extract overall seven variables that may influence the hiring of gig workers by SMEs in The Netherlands.

2.2.1. Transaction cost economics

Going back to the work of John R Commons in 1934 (Williamson, 1981), the first factor that strongly influences a firm's choice to make or buy labour refers to the transaction costs incurred. A transaction occurs when a good or service is transferred between two separate parties. Transaction costs are the costs related to this transfer, such as setting up a contract, monitoring, negotiating and communication costs. Transaction cost theory focuses on how these transactions can be performed most efficiently and thereby diminish transaction cost. Klaas, McClendon and Gainey examined the role of transaction cost in outsourcing of HR practices. From their work, I extract three variables (uncertainty, outsourcing

emphasis and cost pressure) that are likely to affect the make-or-buy decision making-process and thereby the hiring of gig workers.

Uncertainty

Firms facing a high level of uncertainty typically make frequent adjustments in the number of employees and the allocation of work (Klaas et al., 1999). According to transaction cost economics, it is more costly for firms in uncertain environments to establish long-term commitments due to investments in hiring, training and firing staff (Abraham, 1990; Abraham & Taylor, 1996). Relying more on outside contractors provides firms with an opportunity to adjust staffing levels with relatively low costs. Therefore, it is especially likely, that firm operating in an uncertain environment hire external labour and thus gig workers.

Hypothesis 1: Firms facing high levels of uncertainty are more likely to hire gig workers.

Outsourcing emphasis

When a firm decides to outsource a specific task, there are always risks involved. However, firms can minimise these risks by developing very specific and well-established contracts (Masten & Crocker, 1985; Mulherin, 1986). Furthermore, it is crucial that activities, like monitoring and integrating external work, is done efficiently. Firms that emphasise outsourcing activities are likely to acquire outsourcing competencies (Klaas et al., 1999). Firms that have a high outsourcing emphasis can perform outsourcing activities with lower transaction costs. In other words: the more a firm outsources, the better they will become at it. Therefore, firms with a high outsourcing emphasis are likely to (continue to) hire external labour.

Hypothesis 2: Firms with more experience in outsourcing tasks are more likely to hire gig workers.

Cost pressure

Every firm has its own goals, strategy and environment and the cost pressure of a firm differs accordingly. As mentioned previously, hiring gig workers can, under certain conditions, save costs. The strategic value of these savings is dependent on how high the cost pressures are that a firm faces (Williamson, 1996). Firms facing severe cost pressure are likely to value short-term cost reductions over long-term costs (Klaas et al., 1999). Hiring gig workers can save costs because a lot of the costs involved with hiring staff are not present when hiring gig workers. Therefore, it is more likely that firms under high cost pressure will hire gig workers.

Hypothesis 3: A firm with high cost pressure is more likely to hire gig workers.

2.2.2 Trust

Trust is an essential factor in relationships between organisations and people. Multiple studies have shown that trust increases with the duration of a relationship (Vanneste, Puranam, & Kretschmer, 2014). The duration of a relationship differs for each employment mode. Therefore, I assume that the employment mode indirectly also influences trust. Research of Pavlou (2002) highlights how trust

influences the make-or-buy decisions of firms. More concretely, Pavlou (2002) provides us with multiple indicators of trust between a buyer and supplier. Central in the model of Pavlou are the variables credibility and benevolence. Pavlou based these indicators on Ganesan 1994 and found that these trust indicators play a vital role in the long-term orientation of both buyers and their vendors (Ganesan, 1994). I extract these two variables to evaluate the trust between an employer and the different types of employment. From the work of Ganesan and Pavlou, it can be derived that buyers (in this case firms) find credibility and benevolence of high importance when “buying” workforces. It is therefore assumed that the credibility and benevolence of a worker also play a vital role in the make-or-buy decisions of firms.

Credibility

Credibility is viewed as the supplier meeting the expectations and contractual obligations in a predictable manner (Pavlou, 2002). It is referred to as a party’s predictability, reliability and honesty (E. Anderson & Weitz, 1989). As mentioned above, trust increases over the duration of a relationship, an employment mode with a longer relationship between employer and employee is likely to build more credibility. When a firm perceives another party as credible, it is more likely to do business with that party and vice-versa.

Hypothesis 4: Firms that perceive workers performing the task in question as less credible are more likely to hire gig workers.

Benevolence

Benevolence refers to the intentions and motives of the other party. Benevolence is high when a firm believes that a seller has intentions that benefit the buyer’s firm, also referred to as goodwill (Pavlou, 2002). Even if opportunities arise that can benefit the seller, they do not act on this opportunity unless it also benefits the buyer. Put simply: a party will not take unfair advantage of trust, even if they do get the chance to do so (J. C. Anderson & Narus, 1990). Here I argue the same as with credibility, namely that benevolence increases over time and therefore firms likely have less benevolence towards gig workers.

Hypothesis 5: Firms that perceive workers performing the task in question as less benevolent are more likely to hire gig workers.

2.2.3 Human resources architecture

Within the HR literature of business and management studies, Lepak and Snell (1999) found that the strategic value of Human Resources, as well as their uniqueness, substantially influence whether labour is employed internally or hired externally and thus influences the hiring of gig workers.

Human capital value

From a resource-based view, resources are valuable when they enable a firm to improve efficiency and effectiveness and exploit opportunities and/or neutralise threats (Lepak & Snell, 1999). Accordingly, human capital value is high when it contributes to the competitive advantage or core competencies of

a firm (Lepak & Snell, 1999). Put differently; the people with high human capital value are of great importance for the future and stability of a firm. This entails that the outsourcing of tasks with high human capital value can put the competitive advantage and development of a firm at risk. In line with this Lepak and Snell found that employees with high human capital are usually hired on a permanent contract. From this, I derive that tasks with a high human capital value are not likely to be outsourced to gig workers.

Hypothesis 6: Firms that attach a low human capital value to the task in question are more likely to hire gig workers.

Human capital uniqueness

The uniqueness of human capital refers to the degree to which the skills of an employee are scarce and specialised. These skills can provide firms with competitive advantages because they are not easily duplicated and uncommon in the available labour market. The development of tacit knowledge enhances the uniqueness of a firm's human capital (Lepak & Snell, 1999). This entails that externalising tasks that require a high uniqueness may result in the loss of a competitive advantage and tacit knowledge. These are the two main arguments to develop the unique assets of a firm internally.

Hypothesis 7: Firms that attach a low human capital uniqueness to the task in question are more likely to hire gig workers.

3. Method

3.1 Research design

This quantitative study uses multinomial logistic regression analyses order to assess how strongly each of the seven aforementioned factors impacts on an SME's hiring of different work forms, including in particular gig workers.

3.2 Data collection

Population and sample

The population of this study consist of SMEs (firms with fewer than 250 employees) from the manufacturing and hotel industry in The Netherlands. The sample for this research was formed by undertaking the following steps; first, the choice is made to work with the Amadeus database, which collects its data from De Kamer van Koophandel. Amadeus lets us filter on the specifications needed for this research and has a lot of data on firms in The Netherlands. Second, I filter out all firms that are not active or with an unknown situation because these firms are not relevant for this research. Following, the firms with fewer than ten employees are kept out of the sample, the reason for this was that these micro-firms would potentially not need cleaners and can therefore not participate in the survey. The sample was then filtered on the legal form of the firms; general partnership (V.o.f), limited partnership (CV), private limited liability company (BV) and the public limited liability company (NV) were selected to be in the sample. Finally, all firms with a phone number registered in the database were selected because this was important in the data-gathering processes. The created dataset provided us with over seven thousand manufacturers but unfortunately, only a thousand hotels.

When I ran out of hotels to contact in the dataset, I proceeded to contact hotels that are listed on google. Google provided the opportunity to systematically contact hotels without a bias (every hotel can be listed on google). Towards the end of the data collection, more data on gig workers was needed to improve the statistical analysis. Therefore, hotels that used an online platform called Temper were contacted, this platform is specialised in gig work for hotels, bars and restaurants. By using Temper, I knew upfront that these hotels have used gig workers before and that their participation would yield data on gig workers.

Empirical approach

For the data collection, an email was sent to firms from the sample. The email contained a link to the online survey which primarily consists of multiple-choice questions (see appendix A). To increase the response rate, I called the firms which did not participate or reply to the email. Not every employee of a SME has the required knowledge to fill out the survey. Therefore, only CEO's, general managers and human resource managers were asked to fill out the survey.

The survey starts with questions on demographics (firm size, age, type of product, etc.). Following, the participants are asked to fill out questions on the transaction cost factors which are firm-specific and not influenced by the employment modes. After that, the participants answered questions on human capital and trust factors with regard to one type of employment mode.

During data collection, I noticed that the manufacturing industry did not work with gig workers at all. After a net participation of 113 manufacturers of which 60 completed the survey, I decided to only focus on the hotel industry as this industry did provide data on gig workers. The data gathered from the manufacturing industry will be used for robustness checks and comparing an industry that uses gig workers (hotels) to one that does not.

While collecting data from the hotels, I had to make an addition to the survey because thus far it provided no data on gig workers. At first, the survey only asked for the main form of employment that was used to fulfil a specific task. Participants would then go on to answer questions on human capital and trust factors regarding the employment mode they mostly used. This method did not provide us with any data on gig workers, this led us to conclude that gig workers are only used as substitute or additional workers but not as the main form of employment.

To cope with this, I added a separate section on gig workers to the survey, participants that indicated to have worked with gig workers in the past year were automatically directed to this extra section. Here the participants filled out qualitative questions on why and what for they use(d) gig workers. thereafter, participants answered questions on human capital and trust factors regarding gig workers. After completing this additional section, the participants were directed back to the 'normal' part of the survey. The participants that had participated before I made this addition and had indicated that they had worked with gig workers in the past year sent an additional email to gather data on gig workers from them as well.

By only adding a separate section on gig workers without changing the survey and following up on participants that had worked with gig workers before this addition, I was able to keep a homogenous sample. All participants have answered the same questions the difference is that some only answered these questions regarding one employment mode and others on two, of which one was gig workers.

3.3 Operationalisation

The depended variable is operationalized by using (western) literature to define the different employment modes. From this literature, I adopt the commonly used employment modes and their definitions. The operationalisation of the independent variables (human capital value, human capital uniqueness, credibility, benevolence, uncertainty, outsourcing emphasis and cost pressure) is based on the three literature strands that the variables stem from. A large benefit of these papers is that all three provide survey questions that measure the variables, I adopt these questions and apply them to this research. All values of the independent variables are based on the average score between one and five. For composite indices, the average is formed by adding the given scores from all the questions on a given independent variable and then divided by the number of questions.

The control variables consist of demographic data, industry type and different tasks. The demographic data is straight forward, including the age of the firm in years, firm size is measured in the number of employees, legal form of a firm and characteristics of their product or service. Another essential control variable is task type, this variable is used because task types potentially influence the outcome of both the dependent and the independent variables. To account for these differences, I have determined two different tasks on which the participants answer the questionnaire, namely IT staff and cleaners. The tasks differ on if they can be performed online or onsite and the skill level they require. The tasks are also selected since (presumably) all SMEs in The Netherlands require employees to do these tasks. By focusing on two different tasks instead of one I hope to draw more generalisable conclusions on gig workers.

Due to the addition made during the data collection process, not only data on gig workers that performed IT or cleaning tasks was collected. The participants who had indicated to work with gig workers during the past year were asked which task the gig workers most frequently perform(ed). Thereafter, the participants would fill out human capital and trust questions with regard to gig workers performing that specific task. This decision was made to yield as much data on gig workers as possible

and not only gig workers performing IT or cleaning tasks. However, a drawback of this decision was that this led to data on gig workers performing different types of tasks. Therefore, I could, for example, not compare gig workers versus permanent employees both performing cleaning tasks, which would have been the fairest comparison. When looking at the data I found that gig workers were mainly used for low skilled jobs that are performed on-site like cleaning, serving food and doing dishes. Therefore, the decision was made to compare these gig workers with cleaners which is also a low skilled and onsite job. A full overview of the operationalisation table is presented below in table 1.

Table 1 | Operationalisation table

Factor	Sub-factor	Operationalisation	Indicator
Job	Task	Type of task performed by an employee	Cleaners, IT staff
	Employment mode	permanent employee; an employee with a contract for an indefinite period, fixed term employee; an employee with a fixed contract, temp agency worker; a worker that is hired through a temp agency, outsourcing; outsourcing a task to a third party, freelancer; an independent worker hired to perform a certain task, gig worker; an independent worker hired through an online platform to perform a certain task.	1= permanent employee, 2= employee with a fixed term contract, 3= worker from a temp agency, 4=outsourcing to other firms, 5= freelancer, 6= gig worker via an online platform
Value	Human capital value	Twelve questions on how important the skills of an employee are to a firm. For example, how these skills contribute to the creation of innovation, customer service, development of new opportunities, improve efficiency and productivity, etc.	The average score of the overall twelve scores obtained from sub-questions, all measured on a scale from 1-5 (for the questions see appendix A, page 36, Human capital value)
	Human capital uniqueness	Ten questions on how unique the skills of an employee are. For example, if these skills can be easily obtained via the labour market, if competitors have access to these skills, if they are	The average score of the overall ten scores obtained from sub-questions, all measured on a scale from 1-5 (for the questions see appendix

		the best in their industry, how much experience is needed to gain these skills, etc.	A, page 36, Human capital uniqueness)
Trust	Credibility	Three questions on how likely an employee is to be honest, how reliable the promises are made by the employee and how likely to communicate with the employer if problems occur, in order to measure the credibility of different employees.	The average score of the overall three scores obtained from sub-questions, all measured on a scale from 1-5 (for the questions see appendix A, page 37, credibility)
	Benevolence	three questions on how likely an employee cares for the welfare of an employer, they go on a limb for the employer if problems occur and make sacrifices for employers if needed, to measure the benevolence of different employees	The average score of the overall three scores obtained from sub-questions, all measured on a scale from 1-5 (for the questions see appendix A, page 37, benevolence)
Transaction cost economics	Uncertainty	Five questions on how predictable the financial future of the firms and the industry it operates in.	The average score of the overall five scores obtained from sub-questions, all measured on a scale from 1-5 (for the questions see appendix A, page 32, uncertainty)
	Outsourcing emphasis	Two questions on how many staff functions are outsourced and if top executives believe that outsourcing is good for the firm.	The average score of the overall two scores obtained from sub-questions, all measured on a scale from 1-5 (for the questions see appendix A, page 32, Outsourcing emphasis)
	Cost pressure	Nine questions on how important it is for the firm to reduce fixed cost, if the firm has had to downsize or restructure in recent years, if the firm emphasizes cost reductions, etc.	The average score of the overall nine scores obtained from sub-questions, all measured on a scale from 1-5 (for the questions see appendix A, page 32, cost pressure)

Control variables	Firms size	The number of employees on the first of January 2019	Number of employees
	Firm age	The year in which the firm was registered with the Kamer of Koophandel will be used to calculate the firm age	2019 minus the year of registration
	Legal form	Participants were asked to fill out under which legal form their firm operates	Name of legal form
	Product or service	Brief descriptions of the product or service of a firm	Text
	Degree of novelty of the products or service	The participants are asked to describe the novelty of their product or service by choosing between radical, incremental or reproduction	1= radical, 2= incremental, 3= reproduction

3.4 Analysis

All data was exported from the survey and analysed in SPSS. After data cleaning, all variables needed to be checked on issues like multicollinearity and if they were normally distributed. Then I went on to check if the control variables had a significant influence on the dependent variable.

Following, I performed multinomial logistic regression analysis using the data from the hotel industry on cleaners and gig workers. Gig workers were set as the reference category to compare these with other employment modes, the independent variables were set as covariates. This analysis gave us insights on how gig workers compared to other employment modes with regard to the independent variables. Four models were run during this analysis, three for the different literature strands separately and one full model. (model 1 included HCV and HCU, model 2 included credibility and benevolence, model 3 included uncertainty, cost pressure and outsourcing emphasis and model 4 included all independent variables.)

4. Results

4.1 Descriptive

Approximately 180 hotels participate in the online survey of which 93 completed the entire survey. 21 of these 93 hotels worked with gig workers. However, this ratio is not representative for all hotels in the Netherlands because for the data collection Temper was used to find hotels. These are therefore not randomly chosen hotels, but I knew upfront that they had worked with gig workers before. Nonetheless, it can be concluded that the hotel industry works more with gig workers than the manufacturing industry. From the manufacturing industry approximately 100 participations of which 60 completed the survey and zero firms that worked with gig workers in the past year. Table 2 shows the descriptive statistics of the independent variables, the data presented stems only from the hotel industry which is used for the analysis. Most interesting is that the outsourcing emphasis shows a mean of 1,8, which is surprisingly low for an industry that works a lot with temp agency workers and gig workers.

Table 2 | Descriptive statistics of independent variables on a 1-5 scale

	N	Minimum	Maximum	Mean	Median	Std. Deviation
value	74	1,00	4,33	3,0642	3,17	,65642
uniqueness	73	1,00	4,50	2,4904	2,40	,71767
credibility	73	2,33	5,00	3,6896	3,67	,64197
benevolence	73	1,00	5,00	3,2929	3,33	,81495
uncertainty	77	1,00	4,50	2,2695	2,00	,64732
outsourcing	77	1,00	4,00	1,8043	1,67	,83624
cost_pressure	76	1,00	4,22	2,6417	2,67	,62329

Table 3 provides an overview of the number of cases for each employment mode. Most cases are on permanent employees (25), further the dataset contains data on fixed contract employees (12), temp agency workers (5), outsourced to a third party (16), freelancers (1) and gig workers (20)

Table 3 | Descriptive statistics on employment mode frequency

	Frequency
permanent	25
fixed contract	12
temp worker	5
outsourced	16
freelancer	1
gig worker	20
Total	79

Table 4 presents the outcome of the correlation analysis, the variable called 'gigworker' is a dummy variable (yes or no). This output shows that gig workers have a significant negative correlation with human capital value, human capital uniqueness, credibility and benevolence.

Table 4 | Output of correlation analyses

	gigworker	value	uniqueness	credibility	benevolence	uncertainty	outsourcing	cost_pressure
gigworker	1							
value	-,255*	1						
uniqueness	-,301**	,759**	1					
credibility	-,287*	,485**	,458**	1				
benevolence	-,434**	,594**	,590**	,824**	1			
uncertainty	-,040	,320**	,335**	,198	,205	1		
outsourcing	-,018	,298**	,147	-,016	,017	,199	1	
cost_pressure	-,035	,675**	,565**	,208	,329**	,576**	,380**	1

*. Correlation is significant at the 0.05 level (2-tailed).
 **. Correlation is significant at the 0.01 level (2-tailed).

4.2 Multinomial logistic regression analysis

As mentioned in the methodology, this research uses a multinomial regression analysis to test the hypothesis. To make the fairest comparison, only the data on gig workers and cleaners was analysed because the tasks of gig workers were mostly low skilled. This step is necessary but unfortunately leaves a lot fewer cases to analyse. For this analysis, I split the data into three groups the first being internal employees (37 cases) in which I put the employees with a permanent and a fixed contract. The second group was named external (22 cases), where I combined the freelancers, outsourcing and temp agency workers. I compared these groups to the third group that was made up of the gig workers (20 cases). Table 5 shows the results from this analysis with the gig workers set as the reference category. Appendix B contains a multinomial logistic regression analysis where every employment mode is separately displayed.

Table 5 | Multinomial logistic regression output

make_or_buy ^a		B	Std. Error	Wald	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
							Lower Bound	Upper Bound
internal	Intercept	-12,850	4,214	9,298	,002			
	value	,995	1,001	,988	,320	2,706	,380	19,266
	uniqueness	,751	,905	,688	,407	2,119	,359	12,496
	credibility	,632	,913	,478	,489	1,881	,314	11,270
	benevolence	3,194	1,021	9,781	,002	24,388	3,295	180,511
	uncertainty	,967	,911	1,128	,288	2,631	,441	15,683
	outsourcing	-,245	,575	,182	,670	,783	,254	2,415
	cost_pressure	-1,924	1,264	2,317	,128	,146	,012	1,739
external	Intercept	-9,196	3,870	5,646	,017			
	value	1,250	,968	1,665	,197	3,489	,523	23,275
	uniqueness	1,101	,877	1,579	,209	3,008	,540	16,767
	credibility	,933	,837	1,243	,265	2,541	,493	13,095
	benevolence	1,412	,797	3,133	,077	4,102	,860	19,581
	uncertainty	,139	,817	,029	,865	1,149	,232	5,698
	outsourcing	,252	,557	,206	,650	1,287	,432	3,832
	cost_pressure	-1,831	1,242	2,174	,140	,160	,014	1,828

From table 5, we learn that benevolence has a significant influence on whether gig workers or internal employees are hired. Coefficient B (3,194) shows that this is a substantial effect, therefore tasks that require a high level of benevolence are much more likely to be performed by internal staff instead of gig workers. This outcome shows that when benevolence increases by one, the odds of hiring internal staff versus gig workers are 24 times higher. These findings are in line with hypothesis five and because of significance, the null hypothesis is rejected.

Regarding the other six hypotheses, the multinomial logistic regression analysis does not show significant findings. Therefore, the null hypothesis of other hypotheses cannot be rejected. However, interactions with general managers over the phone and via the survey, provide insights on H1 and H3. Quotes like “We had a last-minute shortage in staff therefore we engaged with Temper to solve this” and “We use gig workers because the amount of work we have varies” indicate that the hotel used gig workers due to uncertainty, which is in line with H1. Furthermore, I found that gig workers are not used as a main form of employment. Gig workers are used as additional staff next to the permanent staff. For example, when a hotel has a very busy day then they need some extra hand to clean all the rooms in time for the next guests to arrive. In this case, the uncertain demand leads to the hiring of gig workers. Moreover, the finding that the manufacturing industry does not work with gig workers indirectly supports hypothesis 1 because the manufacturing industry has been reported to operate in a relatively stable environment (Klaas et al., 1999).

Also, participants often gave monetary arguments as to why their hotels hired gig workers: “upwork.com gives us a better price and no payroll taxes are involved”. The hotels often compare gig workers with temp agency workers “Temper is quicker and cheaper than temp agency workers” and “gig workers are relatively cheap and more flexible than temp agency workers”. These quotes are in line with H3, when cost pressure is high, firms often turn to cheaper options. However, in this case,

the cheaper option is not the lesser option, this entails that also when cost pressure is low, hotels may still opt for gig workers instead of temp agency workers. This might be an explanation as to why there was no significance found for H3.

4.3 Robustness checks

As mentioned in the methodology we used the data from the manufacturing industry to check for the robustness of the results. The same multinomial logistic regression analysis was performed including the data of cleaners in the manufacturing industry. This analysis showed one important difference in the outcome compared to the analysis above. There was a significant difference between the value of gig workers and cleaners with an external employment mode; the value of gig workers was higher. This has to do with the value cleaners have in the manufacturing industry. The value of cleaners in hotels is a lot higher because it is of great importance to their customers which is not the case in the manufacturing industry. Therefore, this difference comes from inter-industry differences.

Also, we ran different models for each strand of literature and including control variables. These models did not show results that were different from the full multinomial logistic regression analysis.

5. Conclusion

With the increasing amount of gig workers in recent years, firms have new opportunities to hire labour in a very flexible manner. This explorative research sheds the first light on the thus far unstudied relation between firms and gig workers. By using theory based on transaction cost economics, this research gives the first insights into this relationship.

In my opinion, the most important insights lie in the difference between why firms hire gig workers instead of temp agency workers. Although the data did not statistically prove these differences, I did manage to find some indications of these differences via interactions with the participants. General managers from hotels indicated that gig workers are cheaper and more flexible than temp agency workers and they utilize them due to fluctuations in staff or demand. These findings are in line with the work of Houseman (2001) presented in the literature section. Houseman stated that firms hire external workforce because of fluctuation in demand, fluctuation in staff availability, cost-saving and rarely used for screening potential employees. By being cheaper and more flexible, the gig workers outperform the temp agency workers on these core factors in the decision-making process.

The quantitative analysis showed a significant influence of benevolence. Tasks with higher benevolence are less likely to be performed by gig workers. This is in line with the fact that trust increases over the duration of a relationship (Vanneste et al., 2014), because permanent employees have a much lengthier relationship with an employer compared to gig workers. Other hypotheses unfortunately did not show statistically significant results; more data is needed to give more definitive results on these hypotheses.

6. Discussion

6.1 Relevance

First and foremost, this research contributes to expanding the (theoretical) knowledge on gig workers and therefore the gig economy as a whole. More specifically, this thesis is the first research on gig workers from a firm perspective. A perspective that, due to the growth rate of the gig economy, will become more important over time. From here on, there is much work still to be done in exploring and mapping the relationship between firms and gig workers. The findings of this research also contribute to transaction cost literature by showing that this literature is still relevant today; The decision-making process on what type of labour to hire is still primarily determined by principles from transaction cost economics.

Furthermore, the findings on benevolence (H5) support the idea that trust is built over time. Trust is a crucial aspect of the gig economy, and platforms do their utmost to enhance trust by implementing rating and screening systems (Parigi & Ma, 2016). However, the findings show that the benevolence towards internal staff is still significantly higher when compared to gig workers.

This thesis also has practical relevance, for firms that do not yet work with gig workers, there are several valuable lessons. From reading this research, (human resource) managers can gain knowledge on how gig workers can provide opportunities for them to cope with fluctuations in demand and staff. In this thesis, managers are provided with knowledge from other firms that have experience with hiring gig workers. The most important take away for managers is the difference between gig workers and other forms of external workforce. Namely that they can be called upon very last minute and often cheaper than temp agency worker. This knowledge can not only be applied in the hotel industry, but managers can use these benefits in other types of industries.

6.2 Future research & Limitations

First, this research only focuses on SMEs, this decision was made because the risk and potential benefits from working with gig workers are both high for SMEs. However, this does not entail that only SMEs are relevant in this field of research. Interesting would be to find out if the same findings can be replicated when researching large firms or start-ups with very few employees. For both firm sizes, there are opportunities to benefit from working with gig workers.

Another option for future research is to duplicate this research (with improvements) in other industries and countries. From research in different industries more can be learned about inter-industry differences in similar ways that this research found differences between the manufacturing and hotel industry. The same holds for different countries, it is likely (but unknown) that countries with CLMs will provide similar results, countries with more liberal labour markets most likely show different findings.

Furthermore, changes in the dependent variable could happen over time. The gig-economy is still a relatively new phenomenon; it is human nature to not directly trust something new. Therefore, as the gig economy expands and becomes better known, this can also influence the trust variables and increase the use of gig workers.

Finally, a limitation of this research is that I was not able to compare different employment modes within the same task. I did set out to gather data in this manner, but this limited the data I could gather on gig workers. Future research can learn from this explorative research and focus on tasks that I found are often used in the hotel industry.

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Appendix A

University of Utrecht: Research Project on Gig Workers

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Introduction/email

Dear (company name),

My name is Yannick de Vries, I am a master's student Innovation Sciences on the University of Utrecht and I am currently working on my master thesis. For my thesis, I am conducting a research study on the value that gig workers have for small to medium enterprises (SMEs) in The Netherlands. Gig workers are a relatively new type of worker that perform jobs for firms as well as private people through online platforms. They are paid on a project basis; these projects can range from building a website to ordering holiday pictures. Your company was selected to be part in this study based on location and firm size which makes you firm relevant for this study. This information, together with your contact details were retrieved from the Amadeus database. The Amadeus database retrieves its information from De Kamer van Koophandel.

My research is focused on the human capital value, human capital uniqueness that gig workers have for SMEs. SMEs can benefit from the flexible employment that gig workers present, hereby reducing financial risks. Also, tasks that require a specific type of knowledge that is not inhouse can be easily outsourced without complicated or long-term contracts. For SMEs, the risks are also more substantial as they do not have the capital to take legal action if the collaboration is not good, an example of this is the possibility that a gig worker steals intellectual property. For this reason, this research is also interested in the trust between a firm and gig worker.

If your firm has not worked with/hired a gig worker before then your input is still valuable for this research. To compare gig workers, information on other forms of employment is very welcome.

Are you willing to participate in this study?

Your participation would help my research a lot and would be much appreciated. If you participate, you will be provided with free access to the full research. The interview takes approximately 10 minutes of your time. The survey is available online, and can be accessed through the following link:

[Open link](#)

Participant`s Statement

Before we begin with the interview, I have to inform you of your rights, even if these seem self-evident to you.

Our interview is carried out under the following conditions:

- Your participation in the interview is voluntary.
- You have the right to raise any questions related to this survey.
- You are free not to answer any question if you do not feel comfortable with it.
- You can interrupt and withdraw from the interview at any time.
- You need to be at least 18 years old to participate in this interview.
- The information collected in the survey will remain anonymous – unless you give us permission to personally quote your data in any publications that may result from this research.

Do you give permission to use your data in my research?

Yes

No

Final Consent

(Please feel free to indicate either your professional or private address.)

hereby confirm that I agree with the abovementioned conditions of this interview.

Name participant: _____

Date: _____

Company name: _____

Position: _____

Email: _____

Are you interested in receiving a summary report at the end of the project?

Yes, I wish to receive a summary report of the project at the following e-mail address:

No, I do not wish to receive a summary report of the project.

This survey consists of two parts. Part 1 is the core of this survey and takes about 10 minutes, after completing this part you will also have the option to also do part 2 which takes about 5 minutes extra. This has been chosen because we understand that your time is valuable. By also completing part 2 you would help the research to gather more data. Completing part 2 is therefore greatly appreciated!

Company information

1. What was the registration date of your company at the Chamber of Commerce? (DD-MM-YYYY)
(In the event that you do not know the exact date but only record the year, note only the year.)
2. How many employees did your firm employ on the first of January? (if you do not know the precise number, make an estimate)
3. What is the current legal form of your company?
 - Vennootschap onder firma (vof)
 - Commanditaire vennootschap (cv)
 - Maatschap
 - Besloten vennootschap (bv)
 - Naamloze vennootschap (nv)
 - Vereniging
 - Other, namely:
4. Briefly describe the product(s) or service(s) of you firm:

5. How would you describe the degree of novelty of the products?
 - Radical innovation (the product has never been available to customers before)
 - Incremental innovation (improvements to previously existing products)
 - Reproduction (similar versions of this product have been available to customers)
 - Do not know
6. Can potential customers purchase / receive an equivalent product / service from another company / competitor?
 - Yes
 - No
 - I don't know
7. The products / service of my company are mainly sold to:
 - Customers in the same province as the company
 - Customers in the same country as the company
 - Customers from abroad
 - about as many customers from the same country as the company as from abroad

**Questions on transaction cost factors (uncertainty, outsourcing emphasis and cost pressures)
(based on Klaas, Mc Clendon and Gainey 1999 p. 136)**

Uncertainty

	1	2	3	4	5
The financial performance of this firm is hard to predict.					
There is a lot of uncertainty about the prospects for this firm.					
The demand for this firm's goods or services is hard to predict.					
This organization is facing much change and uncertainty.					
This organization is relatively stable (reverse scored).					

Outsourcing Emphasis

	1	2	3	4	5
We outsource many staff functions in this organization.					
Our top executives believe in outsourcing most staff functions. In general, top executives here believe that outsourcing is a good thing.					

Cost Pressures

	1	2	3	4	5
Managers here are under pressure to avoid adding fixed costs.					
This firm is trying to make more of its costs variable rather than fixed.					
My organization needs to have a flexible cost structure.					
My organization emphasizes reducing administrative costs.					
My organization has downsized a good deal in recent years.					
My firm has gone through much reengineering and restructuring.					
My firm has made big changes in the way work gets done.					
Managers are under pressure to reduce headcount.					
My organization must reduce labor costs to remain competitive.					

8. Has a gig worker performed tasks for your company in the past year? (This research defines gig workers as people hired through an online platform such as Temper, Helping or Upwork.com to perform one specific task)

no leads to question 10, Yes leads to question 7.

9. Can you explain briefly why it was decided to have a gig worker perform tasks?

10. For what kind of tasks has your company used gig workers in the past year?

- Cleaning
- IT
- Administrative work
- Cook
- Waiter
- Help with dishwashing
- Other, namely: _____

11. Which task within your company is most often outsourced to gig workers?

(choose one type of task)

This question is followed by HCU, HCV, credibility and benevolence questions regarding the gig workers fulfilling the task most frequently outsourced to gig workers. After these questions are answered they are filtered back to question 10.

Type of employees

12. Did one or more IT person (s) work for / at your company in the past year? (For example, for creating a website)

No= leads to question 14, yes= leads to question 13.

13. Under what employment mode are/were these IT worker(s) employed? (if multiple employment modes are used for IT staff, choose the standard/most used employment mode)

- Permanent employee (a person hired by your company for an indefinite period based on a full-time or part-time contract)
- Fixed-term employment contract (a person hired by your company for a limited period based on a full-time or part-time contract)
- Temp agency worker (an employee hired through an employment agency, for example Randstad)
- Outsourced to a third party (outsourcing to a specialized company)
- Freelancer (a self-employed person who offers services based on an invoice)
- Gig worker (a person hired through an online platform to perform a specific task)
- Other, namely:

The following two pages consist of questions about IT staff, fill out these questions regarding the IT staff with the most used employment mode (employment mode chosen in the previous question).

This question is followed by HCU, HCV, credibility and benevolence questions regarding IT'ers, then participants are asked if they also want to fill out the same questions but then regarding cleaners (starting at question 14).

14. Did one or more cleaner (s) work for / at your company in the past year?

No= leads to end of survey, yes= leads to question 15.

15. Under what employment mode are/were these cleaners employed? (if multiple employment modes are used for cleaners, choose the standard/most used employment mode)

- Permanent employee (a person hired by your company for an indefinite period based on a full-time or part-time contract)
- Fixed-term employment contract (a person hired by your company for a limited period based on a full-time or part-time contract)

- Temp agency worker (an employee hired through an employment agency, for example Randstad)
- Outsourced to a third party (outsourcing to a specialized company)
- Freelancer (a self-employed person who offers services based on an invoice)
- Gig worker (a person hired through an online platform to perform a specific task)
- Other, namely:

The following two pages consist of questions about cleaners, fill out these questions regarding the cleaners with the most used employment mode (employment mode chosen in the previous question).

This question is followed by HCU, HCV, credibility and benevolence questions regarding cleaners, then to end of survey.

Questions on Human Capital Value (HCV) (based on Lepak and Snell 2002 P.540)

Answers are on a scale of one to five; 1= fully disagree, 2=disagree, 3=neither agree or disagree, 4=agree, 5=fully agree.

Most individuals that perform [type of job] for your firm have skills that ...	1	2	3	4	5
... are instrumental for creating innovations.					
... create customer value.					
... help minimize costs of production, service, or delivery.					
... enable our firm to provide exceptional customer service.					
... contribute to the development of new market/product/service opportunities.					
... develop products/services that are considered the best in our industry.					
... directly affect organizational efficiency and productivity.					
... enable our firm to respond to new or changing customer demands.					
... allow our firm to offer low prices.					
... directly affect customer satisfaction.					
... are needed to maintain high quality products/services.					
... are instrumental for making process improvements.					

Questions on Human Capital Uniqueness (HCU) (based on Lepak and Snell 2002 P.540)

Answers are on a scale of one to five; 1= fully disagree, 2=disagree, 3=neither agree or disagree, 4=agree, 5=fully agree.

Most individuals that perform [type of job] for your firm have skills that ...	1	2	3	4	5
... are not widely available in the labour market.					
... would be very difficult to replace.					
... are not available to our competitors.					
... are widely considered the best in our industry.					
... are developed through on the job experiences.					
... are difficult for our competitors to buy away from us.					
... are unique to our organization.					
... are difficult for our competitors to imitate or duplicate.					
... are customized to our particular needs.					
... distinguish us from our competition.					

Questions on trust (Credibility and benevolence) (based on Pavlou 2002 p. 238)

Answers are on a scale of one to five; 1= fully disagree, 2=disagree, 3=neither agree or disagree, 4=agree, 5=fully agree.

Credibility

	1	2	3	4	5
These [type of workers] are likely to be honest with the employer					
Promises made by these [type of workers] are likely to be reliable					
These [type of workers] are likely to communicate with the employer if problems occur					

Benevolence

	1	2	3	4	5
These [type of workers] are likely to care for the employer's welfare					
These [type of workers] are likely to go out on a limb for employers if problems occur					
I feel that these [type of workers] are likely to make sacrifices for employers if needed.					

End

Thank you and your firm for participating in this survey. Your input will help my research a lot. If you have any feedback on the survey or other comments you can mention it below:

Appendix B

Parameter Estimates

employment_mode ^a		B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
								Lower Bound	Upper Bound
permanent	Intercept	-3,938	2,447	2,589	1	,108			
	cost_pressure	-1,540	,872	3,121	1	,077	,214	,039	1,183
	outsourcing	,092	,485	,036	1	,850	1,096	,424	2,837
	uncertainty	,937	,734	1,628	1	,202	2,553	,605	10,770
	benevolence	2,320	,816	8,079	1	,004	10,180	2,055	50,424
	credibility	-1,068	,751	2,023	1	,155	,344	,079	1,498
	uniqueness	,811	,674	1,448	1	,229	2,249	,601	8,420
	value	,178	,783	,052	1	,820	1,195	,258	5,543
fixed	Intercept	-,603	1,372	,193	1	,660			
contract	cost_pressure	-,604	1,031	,343	1	,558	,547	,073	4,122
	outsourcing	-,772	,664	1,350	1	,245	,462	,126	1,699
	uncertainty	,033	,838	,002	1	,969	1,034	,200	5,344
	benevolence	1,200	,817	2,155	1	,142	3,320	,669	16,477
	credibility	-1,001	,710	1,989	1	,158	,367	,091	1,478
	uniqueness	,067	,747	,008	1	,929	1,069	,247	4,621
	value	,904	,960	,886	1	,346	2,469	,376	16,215
temp worker	Intercept	-4,688	4,065	1,330	1	,249			
	cost_pressure	-,881	1,317	,447	1	,504	,414	,031	5,481
	outsourcing	,478	,720	,441	1	,506	1,613	,393	6,616
	uncertainty	-,657	1,085	,367	1	,545	,518	,062	4,344
	benevolence	,001	,857	,000	1	,999	1,001	,187	5,375
	credibility	,560	,986	,323	1	,570	1,751	,254	12,085

	uniqueness	1,052	1,036	1,031	1	,310	2,864	,376	21,829
	value	,588	1,233	,227	1	,633	1,800	,161	20,167
outsourced	Intercept	-3,305	2,513	1,729	1	,189			
	cost_pressure	-1,653	,924	3,202	1	,074	,192	,031	1,171
	outsourcing	,551	,498	1,223	1	,269	1,735	,653	4,609
	uncertainty	,198	,743	,071	1	,790	1,219	,284	5,230
	benevolence	1,127	,742	2,305	1	,129	3,086	,721	13,218
	credibility	-,532	,716	,552	1	,458	,587	,144	2,390
	uniqueness	,782	,712	1,208	1	,272	2,187	,542	8,825
	value	,872	,832	1,099	1	,294	2,393	,468	12,223
freelancer	Intercept	-208,127	,000	.	1	.			
	cost_pressure	16,409	68903,971	,000	1	1,000	13374569,741	,000	. ^b
	outsourcing	-37,805	,000	.	1	.	3,816E-17	3,816E-17	3,816E-17
	uncertainty	-81,058	84785,050	,000	1	,999	6,264E-36	,000	. ^b
	benevolence	-20,095	49003,090	,000	1	1,000	1,874E-9	,000	. ^b
	credibility	74,981	41887,616	,000	1	,999	36642608690249 32000000000000 00000,000	,000	. ^b
	uniqueness	17,969	37983,296	,000	1	1,000	63668126,826	,000	. ^b
	value	13,641	48073,337	,000	1	1,000	839867,369	,000	. ^b

a. The reference category is: 8.

b. Floating point overflow occurred while computing this statistic. Its value is therefore set to system missing.

